

PATENT CLAIMS

1. A device (1) for determination of the angular position ( $\alpha$ ) of a rotating body (2) relative to a support (4), said device comprising a generator (6) of magnetic flux (32) connected to the rotating body and a magnetoresistive sensor (8) connected to the support (4), characterized in that the generator (6) of magnetic flux (32) takes the form of a ring or a portion of a ring and comprises alternating poles (10, 12) making up a series of magnets generating magnetic fluxes (32) in substantially parallel directions (30).
- 15 2. The device as claimed in claim 1, characterized in that the magnetic flux generator (6) is cut from a strip (14) consisting of a series of lines (16) of a constant width (1) extending in the same direction (18) and constituting said poles.
- 20 3. The device as claimed in claim 2, characterized in that the width (1) of the lines is less than 5 millimeters.
- 25 4. The device as claimed in any one of the preceding claims, characterized in that the magnetic flux generator (6) comprises at least 10 alternating poles (10, 12).
- 30 5. The device as claimed in any one of the preceding claims, characterized in that the magnetic flux generator (6) takes the form of a portion of a ring extending over at least 120 degrees.
- 35 6. The device as claimed in any one of the preceding claims, characterized in that the magnetoresistive sensor (8) comprises two magnetoresistive elements (20, 22) offset angularly by 45° and a microcontroller (24) determining the angular

position of the rotating body (2) from the electrical signals (26, 28) transmitted by said magnetoresistive elements.